HEURISTICS
AND BIASES

The Psychology of Intuitive Judgment

Edited by

THOMAS GILOVICH
Cornell University

DALE GRIFFIN
Stanford University

DANIEL KAHNEMAN
Princeton University
Contents

List of Contributors page xi
Preface xv

Introduction – Heuristics and Biases: Then and Now 1
Thomas Gilovich and Dale Griffin

PART ONE. THEORETICAL AND EMPIRICAL EXTENSIONS

A. Representativeness and Availability
   Extensional versus Intuitive Reasoning: The Conjunction
   Fallacy in Probability Judgment 19
   Amos Tversky and Daniel Kahneman

2 Representativeness Revisited: Attribute Substitution
   in Intuitive Judgment 49
   Daniel Kahneman and Shane Frederick

3 How Alike Is It? versus How Likely Is It?: A Disjunction
   Fallacy in Probability Judgments 82
   Maya Bar-Hillel and Efrat Neter

4 Imagining Can Heighten or Lower the Perceived
   Likelihood of Contracting a Disease: The Mediating
   Effect of Eaise of Imagery 98
   Steven J. Sherman, Robert B. Cialdini, Donna F. Schwartzman,
   and Kim D. Reynolds

5 The Availability Heuristic Revisited: Ease of Recall
   and Content of Recall as Distinct Sources
   of Information 103
   Norbert Schwarz and Leigh Ann Vaughn

B. Anchoring, Contamination, and Compatibility

6 Incorporating the Irrelevant: Anchors in Judgments
   of Belief and Value 120
   Gretchen B. Chapman and Eric J. Johnson
Putting Adjustment Back in the Anchoring and Adjustment Heuristic 139
Nicholas Epley and Thomas Gilovich

Self-Anchoring in Conversation: Why Language Users Do Not Do What They "Should" 150
Boaz Keysar and Dale J. Barr

Inferential Correction 167
Daniel T. Gilbert

Mental Contamination and the Debiasing Problem 185
Timothy D. Wilson, David B. Centerbar, and Nancy Brekke

Sympathetic Magical Thinking: The Contagion and Similarity "Heuristics" 201
Paul Rozin and Carol Nemeroff

Compatibility Effects in Judgment and Choice 217
Paul Slovic, Dale Griffin, and Amos Tversky

C. Forecasting, Confidence, and Calibration

The Weighing of Evidence and the Determinants of Confidence 230
Dale Griffin and Amos Tversky

Inside the Planning Fallacy: The Causes and Consequences of Optimistic Time Predictions 250
Roger Buehler, Dale Griffin, and Michael Ross

Probability Judgment across Cultures 271

Durability Bias in Affective Forecasting 292
Daniel T. Gilbert, Elizabeth C. Pinel, Timothy D. Wilson, Stephen J. Blumberg, and Thalia P. Wheatley

D. Optimism

Resistance of Personal Risk Perceptions to Debiasing Interventions 313
Neil D. Weinstein and William M. Klein

Ambiguity and Self-Evaluation: The Role of Idiosyncratic Trait Definitions in Self-Serving Assessments of Ability 324
David Dunning, Judith A. Meyerowitz, and Amy D. Holzberg

When Predictions Fail: The Dilemma of Unrealistic Optimism 334
David A. Armor and Shelley E. Taylor
E. Norms and Counterfactuals

20 Norm Theory: Comparing Reality to Its Alternatives 348
Daniel Kahneman and Dale T. Miller

21 Counterfactual Thought, Regret, and Superstition: How to Avoid Kicking Yourself 367
Dak T. Miller and Brian R. Taylor

PART TWO. NEW THEORETICAL DIRECTIONS

A. Two Systems of Reasoning

22 Two Systems of Reasoning 379
Steven A. Sloman

Z'23 The Affect Heuristic 397
Paul Slovic, Melissa Finucane, Ellen Peters, and Donald G. MacGregor

24 Individual Differences in Reasoning: Implications for the Rationality Debate? 421
Keith E. Stanovich and Richard F. West

B. Support Theory

25 Support Theory: A Nonextensional Representation of Subjective Probability 441
Amos Tversky and Derek J. Koehler

26 Unpacking, Repacking, and Anchoring: Advances in Support Theory 474
Yuval Rottenstreich and Amos Tversky

27 Remarks on Support Theory: Recent Advances and Future Directions 489
Lyle A. Brenner, Derek J. Koehler, and Yuval Rottenstreich

C. Alternative Perspectives on Heuristics

28 The Use of Statistical Heuristics in Everyday Inductive Reasoning 510
Richard E. Nisbett, David H. Krantz, Christopher Jepson, and Ziva Kunda

29 Feelings as Information: Moods Influence Judgments and Processing Strategies 534
Norbert Schwarz

30 Automated Choice Heuristics 548
Shane Frederick

31 How Good Are Fast and Frugal Heuristics? 559
Gerd Gigerenzer, Jean Czerlinski, and Laura Martignon
Contents

32 Intuitive Politicians, Theologians, and Prosecutors: Exploring the Empirical Implications of Deviant Functionalist Metaphors 582
Philip E. Tetlock

PART THREE. REAL-WORLD APPLICATIONS
A. Everyday Judgment and Behavior

33 The Hot Hand in Basketball: On the Misperception of Random Sequences 601
Thomas Gilovich, Robert Vallone, and Amos Tversky

34 Like Goes with Like: The Role of Representativeness in Erroneous and Pseudo-Scientific Beliefs 617
Thomas Gilovich and Kenneth Savitsky

35 When Less Is More: Counterfactual Thinking and Satisfaction among Olympic Medalists 625
Victoria Husted Medvec, Scott F. Madey, and Thomas Gilovich

36 Understanding Misunderstanding: Social Psychological Perspectives 636
Emily Pronin, Carolyn Puccio, and Lee Ross

B. Expert Judgment

37 Assessing Uncertainty in Physical Constants 666
Max Henrion and Baruch Fischhoff

38 Do Analysts Overreact? 678
Werner F. M. De Bondt and Richard H. Thaler

39 The Calibration of Expert Judgment: Heuristics and Biases Beyond the Laboratory 686
Derek J. Koehler, Lyle Brenner, and Dale Griffin

40 Clinical versus Actuarial Judgment 716
Robyn M. Dawes, David Faust, and Paul E. Meehl

41 Heuristics and Biases in Application 730
Baruch Fischhoff

42 Theory-Driven Reasoning about Plausible Pasts and Probable Futures in World Politics 749
Philip E. Tetlock

References 763

Index 855